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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,698	12/13/2004	Daniel Tillett	23004/407468	8618
4743	7590	05/25/2006	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			PANDE, SUCHIRA	
			ART UNIT	PAPER NUMBER
			1637	

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/517,698	<b>Applicant(s)</b> TILLET ET AL.	
	<b>Examiner</b> Suchira Pande	<b>Art Unit</b> 1637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

This application contains claims directed to the species that belong to the following sets as follows:

#### **I. Chemical Reactions**

- a. DNA sequencing (claims 5 and 7 in part),
- b. Polymerase Chain Reaction (PCR) (claims 5 and 7 in part),
- c. Rolling Circle Amplification (RCA) (claim 5 in part),
- d. Ligase chain Reaction (LCR) (claim 5 in part),
- e. Rapid Amplification of cDNA Ends (RACE) (claim 5 in part),
- f. reverse-transcriptase PCR (RT-PCR) (claim 5 in part),
- g. DNA fingertyping (claim 5 in part),
- h. DNA genotyping (claim 5 in part),
- i. endonuclease-restriction digest (claim 5 in part),
- j. DNA ligation (claim 5 in part),
- k. DNA phosphorylation (claim 5 in part),
- l. DNA methylation (claim 5 in part),
- m. DNA labeling (claim 5 in part),

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- n. ribonucleic acid (RNA) digestion (claim 5 in part),
- o. proteolytic digestion (claim 5 in part),
- p. Protein modification is glycosylation (claims 5 and 6 in part),
- q. Protein modification is phosphorylation (claims 5 and 6 in part).

Currently, claims 1-4 are generic.

## **II. Reactants**

- r. DNA (claim 8 in part)
- s. gDNA (claims 8 and 9 in part),
- t. cDNA (claims 8 and 9 in part),
- u. mDNA (claims 8 and 9 in part),
- v. primer DNA (claims 8 and 9 in part),
- w. plasmid DNA (claims 8 and 9 in part),
- x. PCR product (claims 8 and 9 in part)
- y. RNA (claim 8 in part)
- z. mRNA (claim 8 in part) ,
- aa. Proteins (claim 8 in part)
- bb. Enzymes (claim 8 in part),
- cc. DNA polymerase (claims 8 and 10 in part),
- dd. RNA polymerase (claims 8 and 10 in part),
- ee. reverse transcriptase (claims 8 and 10 in part),
- ff. restriction endonuclease (claims 8 and 10 in part),
- gg. DNA methylase (claims 8 and 10 in part),

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- hh. Polynucleotide kinase (claims 8 and 10 in part),
- ii. nucleotide transferase (claims 8 and 10 in part),
- jj. DNA ligase (claims 8 and 10 in part),
- kk. RNA ligase (claims 8 and 10 in part),
- ll. Protease (claims 8 and 10 in part),
- mm. DNA modifying enzyme (claims 8 and 10 in part),
- nn. RNA modifying enzyme (claims 8 and 10 in part),
- oo. protein modifying enzyme (claims 8 and 10 in part),
- pp. salts (claim 8 in part),
- qq. radioactive isotopes (claim 8 in part),
- rr. carbohydrates (claim 8 in part)

Currently, claims 1-4 are generic.

### **III. Inert phases**

- ss. non-polar water-immiscible compound or composition (claim 16)
- tt. hydrocarbon compound (claim 17)
- uu. pentane (claims 17 and 18 in part),
- vv. hexane (claims 17 and 18 in part),
- ww. heptane (claims 17 and 18 in part),
- xx. octane (claims 17 and 18 in part),
- yy. nonane (claims 17 and 18 in part),
- zz. decane (claims 17 and 18 in part),
- aaa. dodecane (claims 17-18 and 20 in part),

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- bbb. hexadecane (claims 17-18 and 20 in part),
- ccc. octadecane (claims 17 and 18 in part),
- ddd. eicosane (claims 17 and 18 in part),
- eee. squalene and derivatives of squalene (claims 17 and 18 in part),
- fff. 7-methyl-1,6-octadiene (claims 17 and 19 in part),
- ggg. 2,2,4-trimethylpentane (claims 17 and 19 in part),
- hhh. 1-dodecene (claims 17 and 19 in part),
- iii. 1-hexadecane (claims 17 and 19 in part),
- jjj. cyclohexane (claims 17 and 19 in part),
- kkk. propylcyclohexane (claims 17 and 19 in part),
- lll. polysiloxane (claim 17 in part),
- mmm. linear polysiloxane (claim 17 in part)),
- nnn. branched polysiloxane (claim 17 in part),
- ooo. cyclic polysiloxane (claim 17 in part),
- ppp. mineral oil or petroleum oil (claims 17 and 20 in part),
- qqq. n-hexane (claim 20 in part).

Currently, claims 3-4 and 12-15 are generic.

#### **IV. Changes**

- rrr. Physical Change (claim 26 in part),
- sss. Change in temperature (claims 26 and 27 in part),
- ttt. Change in pressure (claim 26 in part),
- uuu. Chemical change (claim 26 in part),

vvv. Exposure to chemical compound (claim 26 in part),

www. Addition of glycerol (claims 26 in part and 28)

Currently, claims 1-4 are generic.

**V. Surfactants.** Four types of surfactants are recited in claims 22-25 namely:

xxx. Non-ionic (claim 22) with numerous species recited in claim 22.

yyy. Ionic (claim 23) with numerous species recited in claim 23.

zzz. Zwitterionic (claim 24) with numerous species recited in claim 24.

aaaa. Triton X-100 or Triton X-114 (claim 25)

Currently, claims 1-4 are generic.

Applicant is required, in reply to this action, to elect a single species from each of the above sets I-V to which the claims shall be restricted if no generic claim is finally held to be allowable.

That means applicant must elect a single species of chemical reaction from set I, a single species of reactant from set II, a single species of inert phase from set III, a single species of change from set IV and a single species of surfactant from set V. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

The inventions listed in claims 1- 36 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The methods recited in claim(s) 1 is known in the Art.

The method of claim 1 is taught by Kato et. al. (1991) in the paper entitled "Effect of preparation conditions of enzyme- encapsulating w/o/w emulsion on enzymatic NAD<sup>+</sup>-recycling in the emulsion".

Thus methods of claim(s) 1-3, and claims 5-10,13, 21-28, 30-33 (in part) cannot therefore be considered a special technical feature. The expression "special technical features" refers to those features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. The lack of unity rules hold that a feature known to a person of ordinary skill in the art cannot be considered special technical feature. Therefore unity of invention is lacking.

Accordingly, species of claims 1-36 are not so linked by the same or corresponding special technical feature as to form a single general inventive concept.



**Conclusion**

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suchira Pande whose telephone number is 571-272-9052. The examiner can normally be reached on 8:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Suchira Pande  
Examiner  
Art Unit 1637

**TERESA STRZELECKA**  
**PATENT EXAMINER**

*Teresa Strzelecka*  
5/22/06